Fig. 1

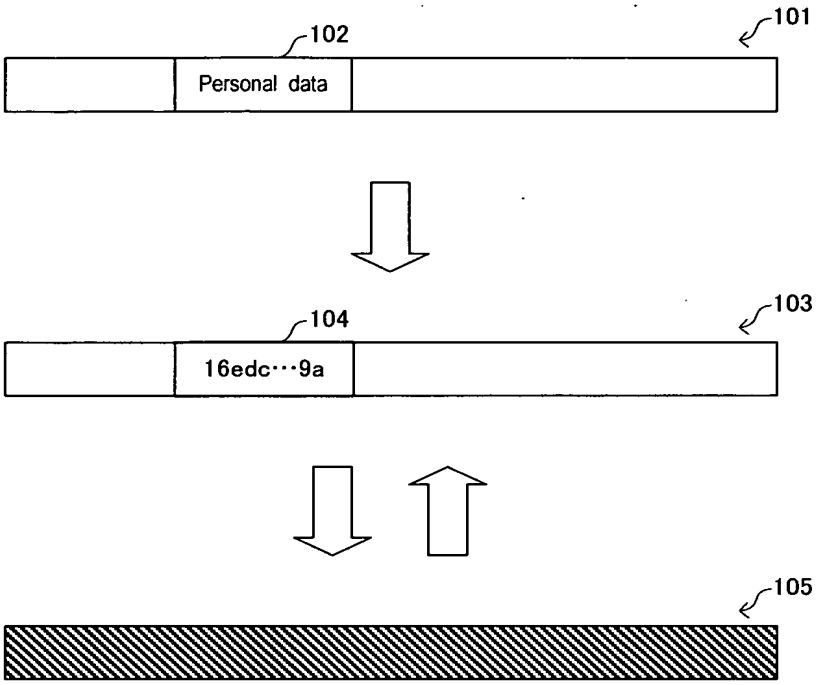


Fig. 2

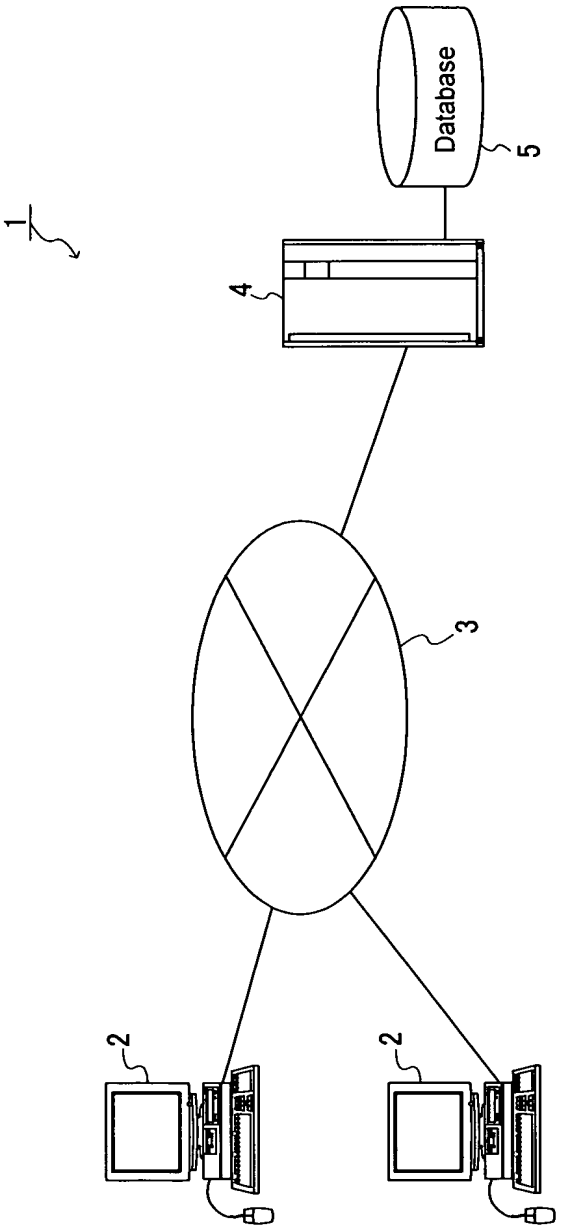


Fig. 3

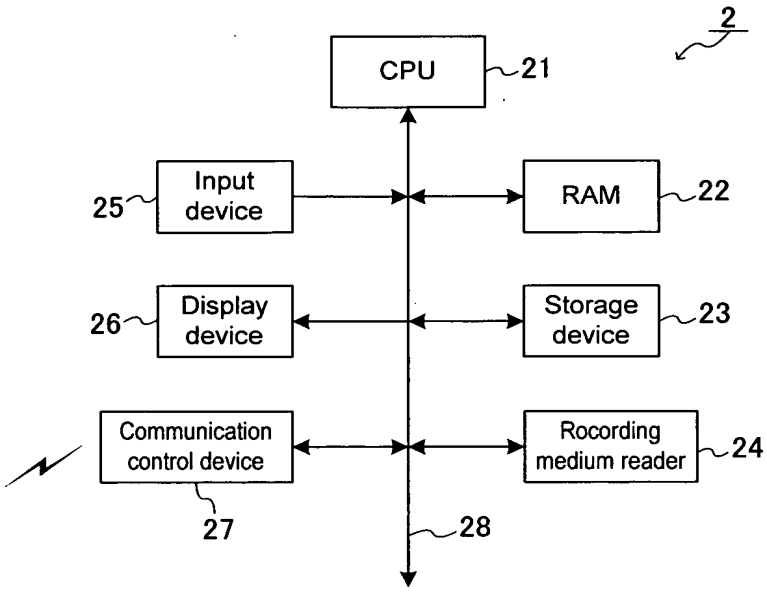
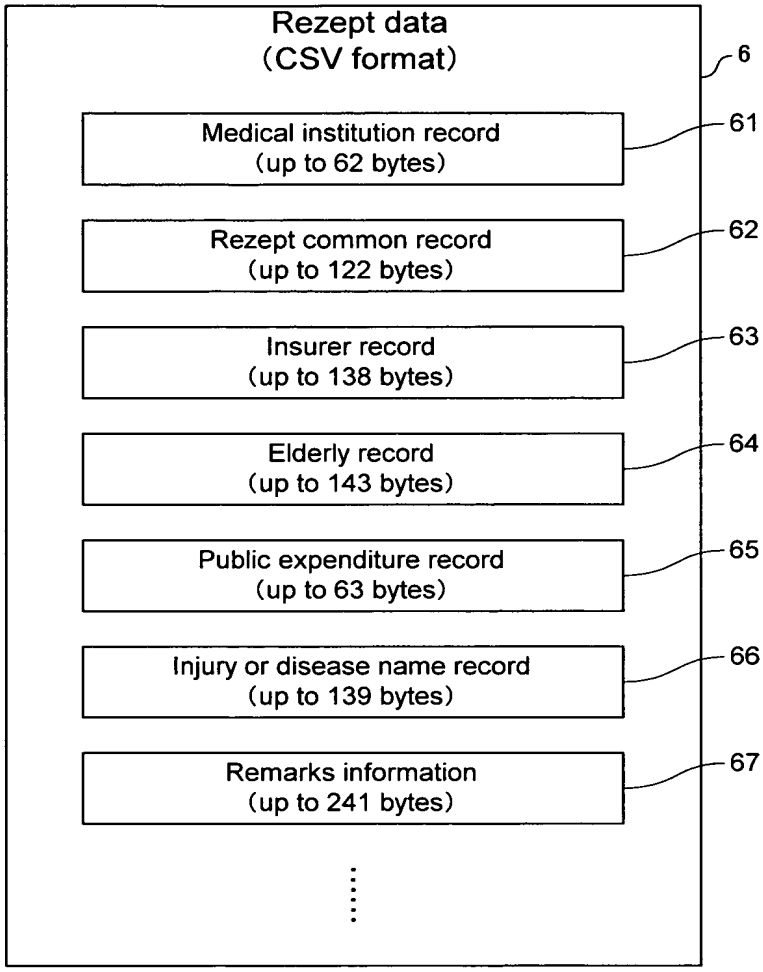

2
CPU
21
Input device
25
RAM
22
Display device
26
Storage device
23
Communication control device
27
Rocording medium reader
24
28

Fig. 4

(a)


Rezept data
(CSV format)
6
Medical institution record
(up to 62 bytes)
61
Rezept common record
(up to 122 bytes)
62
Insurer record
(up to 138 bytes)
63
Elderly record
(up to 143 bytes)
64
Public expenditure record
(up to 63 bytes)
65
Injury or disease name record
(up to 139 bytes)
66
Remarks information
(up to 241 bytes)
67

(b)

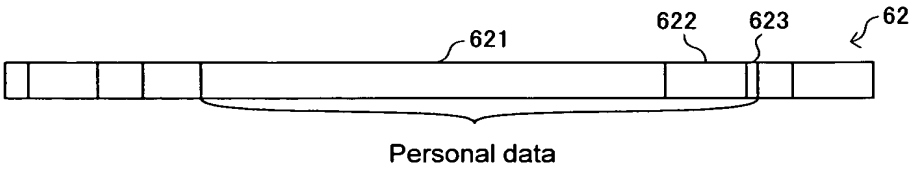

621
622
623
62
Personal data

Fig. 5

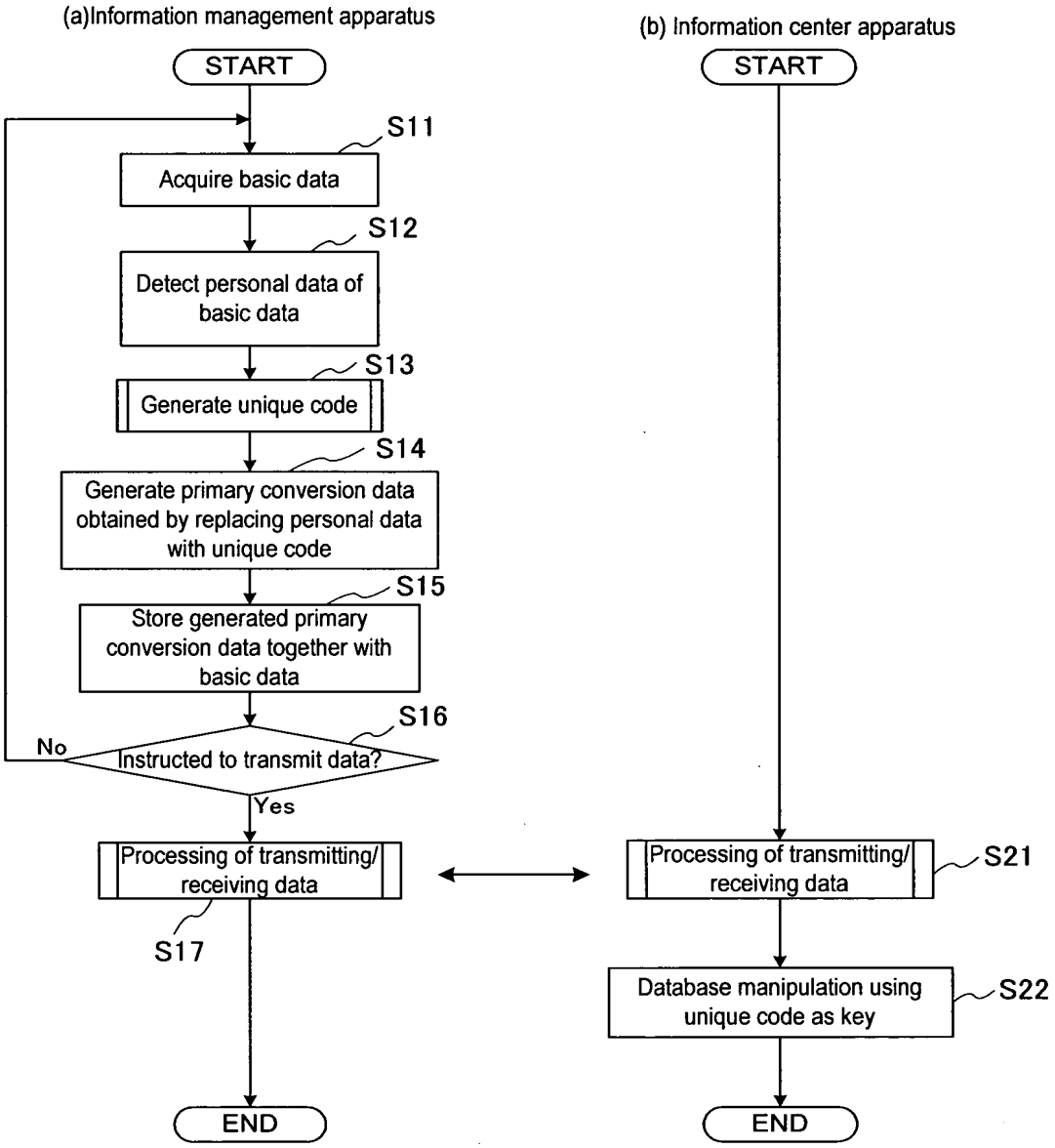

(a)Information management apparatus
START
S11
Acquire basic data
S12
Detect personal data of basic data
S13
Generate unique code
S14
Generate primary conversion data obtained by replacing personal data with unique code
S15
Store generated primary conversion data together with basic data
S16
No
Instructed to transmit data?
Yes
Processing of transmitting/ receiving data
S17
END
(b) Information center apparatus
START
Processing of transmitting/ receiving data
S21
Database manipulation using unique code as key
S22
END

Fig. 6

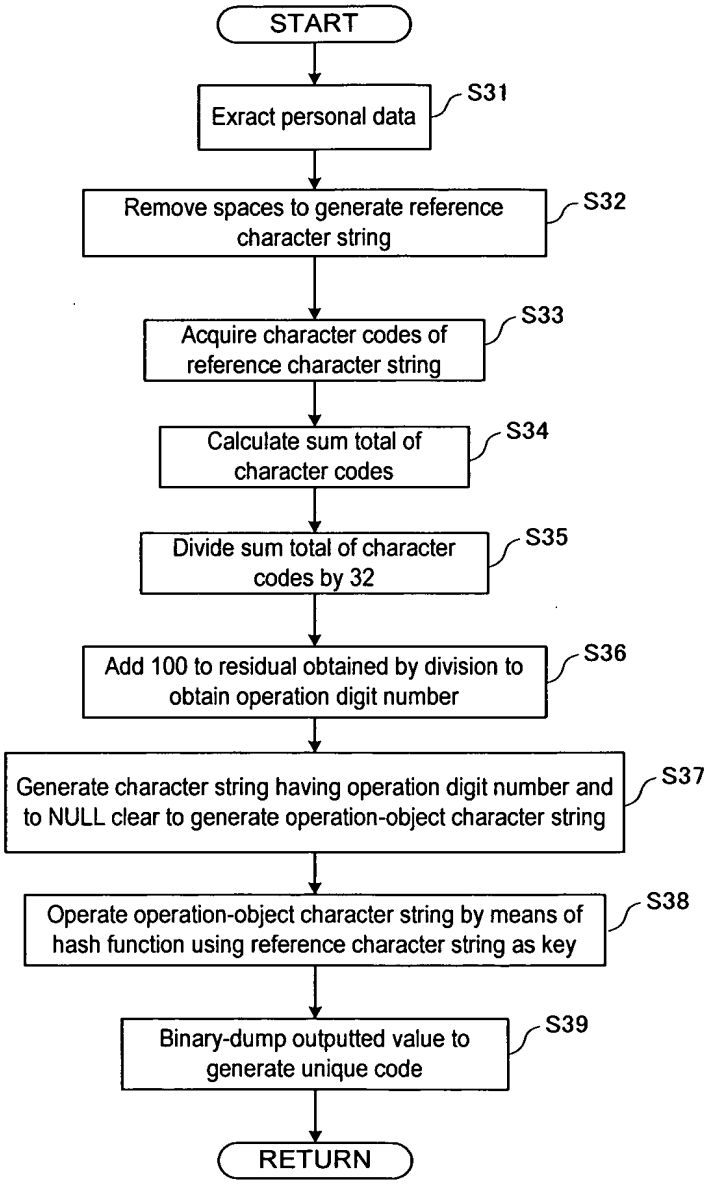
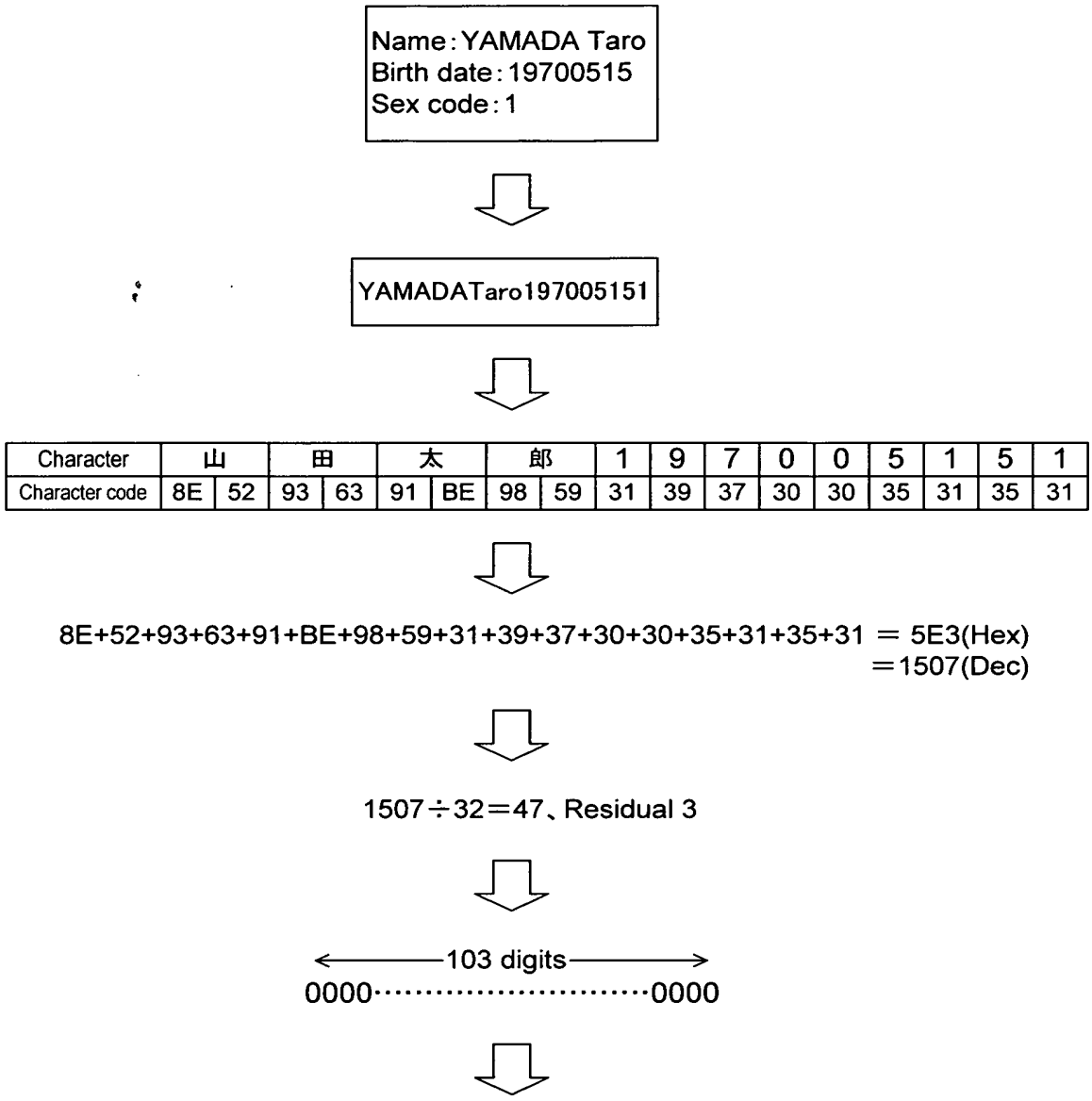

START
Exract personal data
S31
Remove spaces to generate reference character string
S32
Acquire character codes of reference character string
S33
Calculate sum total of character codes
S34
Divide sum total of character codes by 32
S35
Add 100 to residual obtained by division to obtain operation digit number
S36
Generate character string having operation digit number and to NULL clear to generate operation-object character string
S37
Operate operation-object character string by means of hash function using reference character string as key
S38
Binary-dump outputted value to generate unique code
S39
RETURN

Fig. 7



Character	山		田		太		郎		1	9	7	0	0	5	1	5	1
Character code	8E	52	93	63	91	BE	98	59	31	39	37	30	30	35	31	35	31

Fig. 8

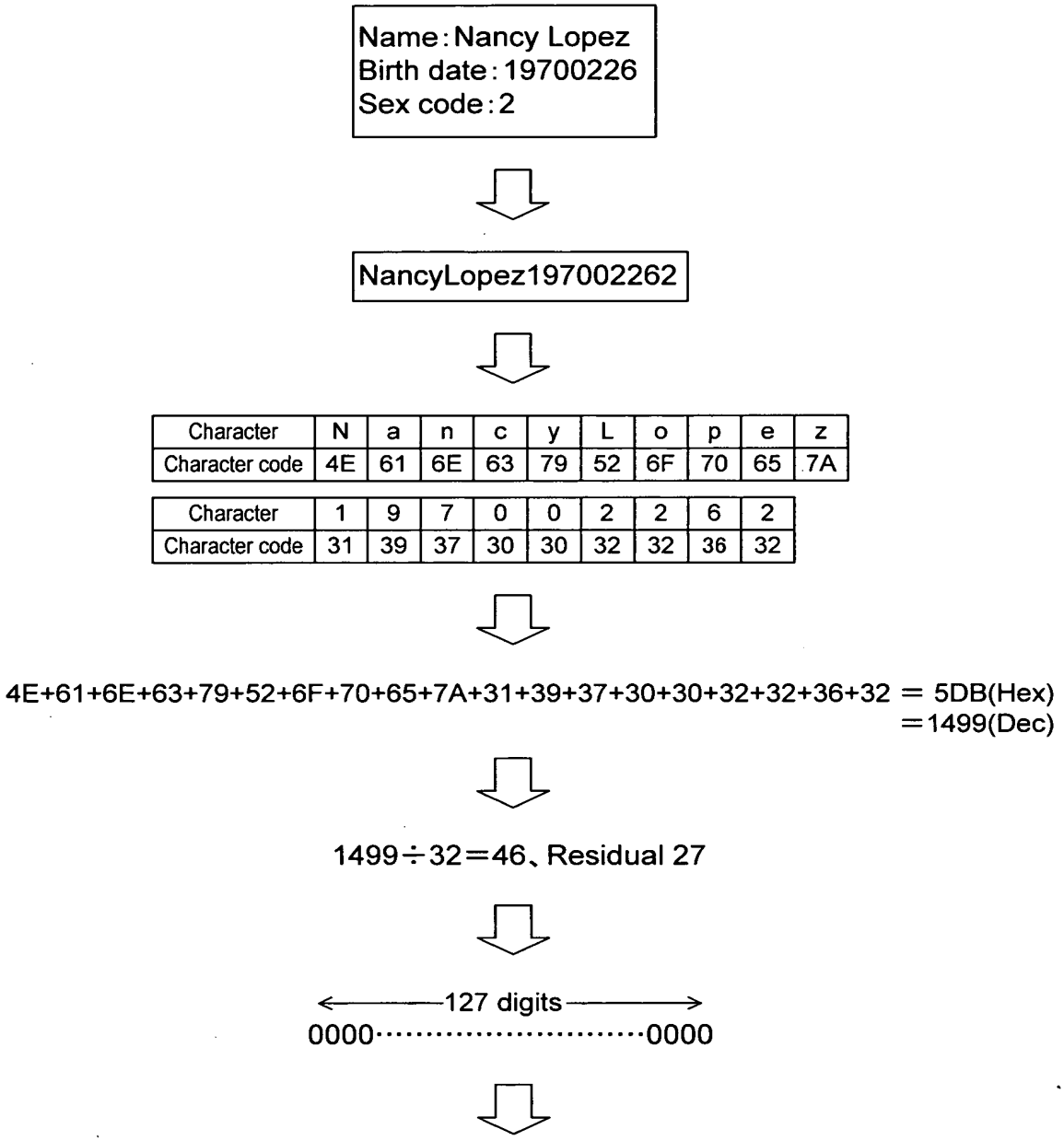

Name: Nancy Lopez
Birth date: 19700226
Sex code: 2
NancyLopez197002262
Character N a n c y L o p e z
Character code 4E 61 6E 63 79 52 6F 70 65 7A
Character 1 9 7 0 0 2 2 6 2
Character code 31 39 37 30 30 32 32 36 32
4E+61+6E+63+79+52+6F+70+65+7A+31+39+37+30+30+32+32+36+32 = 5DB(Hex)
=1499(Dec)
1499÷32=46、Residual 27
127 digits
0000·····0000
56b03813bad4c752a5c13247a0bc194ca607caf2e29564
6a061027d09c00d9ec9767f6e825c521647b16a19df9ee
6041ae400b7fa1026c93491d1d577a815129626493b6e9
da791e85203fd00018e6022a0215afb571b67fffd47d3e68
7dad79252ad98012bdd73d476edc0639a73cd9ca2a7f3c
831e065bdd

Fig. 9

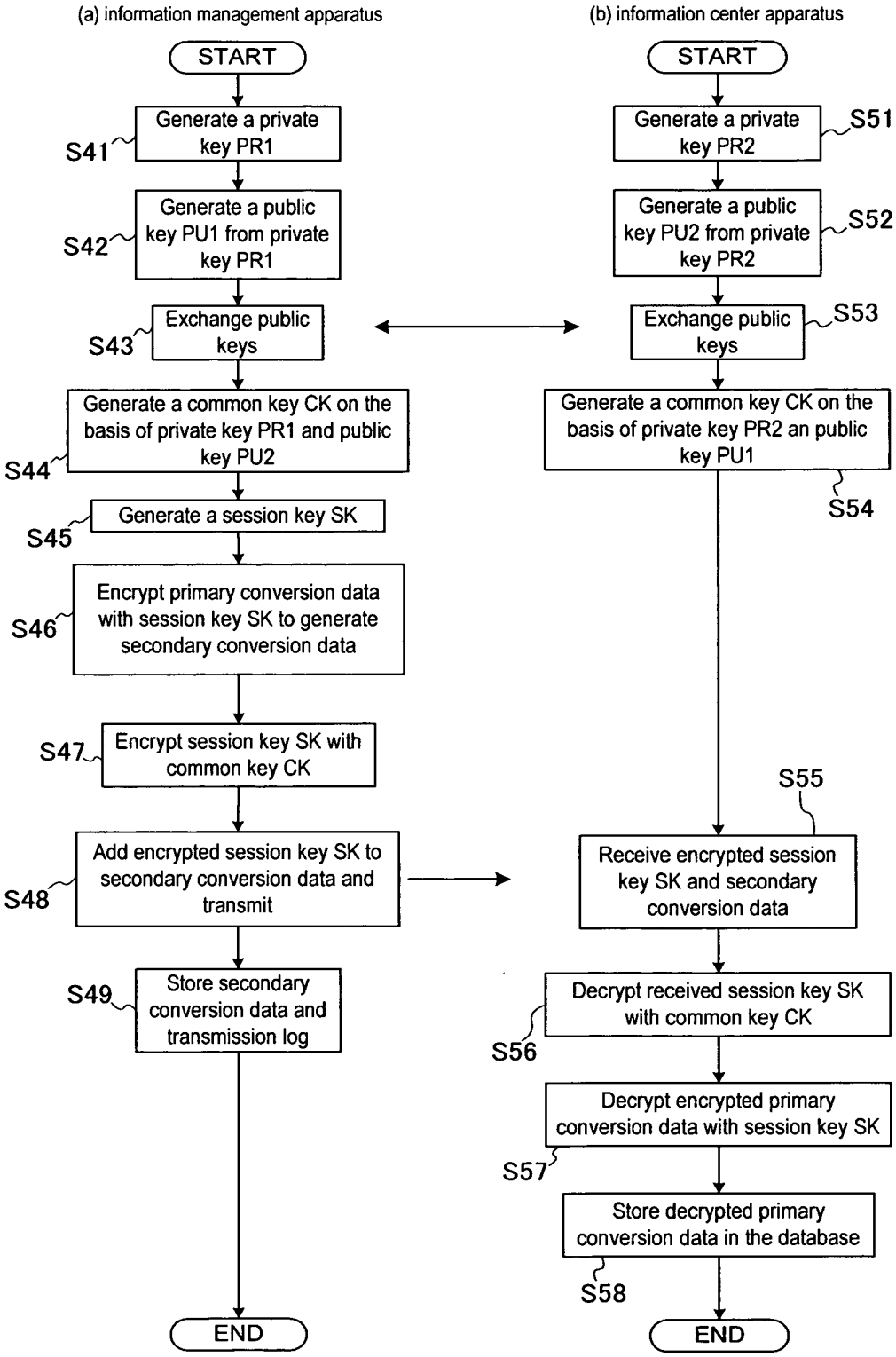

(a) information management apparatus
START
Generate a private key PR1
S41
Generate a public key PU1 from private key PR1
S42
Exchange public keys
S43
Generate a common key CK on the basis of private key PR1 and public key PU2
S44
Generate a session key SK
S45
Encrypt primary conversion data with session key SK to generate secondary conversion data
S46
Encrypt session key SK with common key CK
S47
Add encrypted session key SK to secondary conversion data and transmit
S48
Store secondary conversion data and transmission log
S49
END
(b) information center apparatus
START
Generate a private key PR2
S51
Generate a public key PU2 from private key PR2
S52
Exchange public keys
S53
Generate a common key CK on the basis of private key PR2 an public key PU1
S54
S55
Receive encrypted session key SK and secondary conversion data
Decrypt received session key SK with common key CK
S56
Decrypt encrypted primary conversion data with session key SK
S57
Store decrypted primary conversion data in the database
S58
END

Fig. 10

No.	Name	Birth date	Sex	Medical institution name	Injury or disease name	Number of days for medical treatment	Contents of medical treatment
1	山田太郎	19700515	1	○○○	― ― ―	― ― ―	― ― ―
2	小泉次郎	19551120	1	○○○	― ― ―	― ― ―	― ― ―
3	日本花子	19990101	2	○○○	― ― ―	― ― ―	― ― ―
4	山田太郎	19700515	1	△△△	― ― ―	― ― ―	― ― ―
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮

Fig. 11

No.	Unique code	Medical institution name	Injury or disease name	Number of days for medical treatment	Contents of medical treatment
1	548b1695d8e9a2b6085b5	○○○	― ― ―	― ― ―	― ― ―
2	697473cd0029ca38c3	○○○	― ― ―	― ― ―	― ― ―
3	4576edc003063c8381	○○○	― ― ―	― ― ―	― ― ―
4	548b1695d8e9a2b6085b5	△△△	― ― ―	― ― ―	― ― ―
⋮	⋮	⋮	⋮	⋮	⋮

1	548b1695d8e9a2b6085b5	○○○	― ― ―	― ― ―	― ― ―
4	548b1695d8e9a2b6085b5	△△△	― ― ―	― ― ―	― ― ―